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10/531,695

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EXAMINER

TRAN, TRANG U

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/531,695 | Applicant(s) JUNKERSFELD ET AL. | |
| | Examiner Trang U. Tran | Art Unit 2622 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 02, 2008 has been entered.

Response to Argument

2. Applicant's arguments filed October 02, 2008 have been fully considered but they are not persuasive.

In re pages 8-10, applicants argues that Sackstein et al and Griffiths do not appear to teach the claimed "locked audio and video clocks" and "adjusts the locked audio and video clocks" as required by claim 1.

In response, the examiner respectfully disagrees. As discussed in the Last Office Action, Sackstein discloses in col. 8, lines 20-21 that "video clock 122 need not be locked to the audio clock 112". This is one aspect of Sackstein and other aspect of Sackstein, which the audio clock 112 and the video clock are locked, is disclosed in col. 8, lines 65-67 that "if **the audio clock 112 and the video clock 122 are locked**, the ratio between the rate at which compressed video frames enter buffer 128 (VIDEO in) and the rate at which compressed audio frames enter buffer 118 (AUDIO in) is on average constant (RATIO in), RATIO in is equal to RATIO sampled", and in col. 9, lines

Art Unit: 2622

39-40, Sackstein also discloses in col. 9, lines 54-62 that "If DIFFos is positive (as is the case in the example above) the controller deduces that the video clock is effectively running faster than the audio clock. In this case the number of audio samples should be increased to effectively speed up the audio clock. If DIFFos is negative the controller deduces that the video clock is effectively running slower than the audio clock. In this case the number of audio samples should be decreased to effectively slow down the audio clock". From the above passage, it is clear that the audio and clocks are adjusted when the clocks of audio and video are clocked.

In re page 10, applicants state that dependent claims 2-6 should be allow for the same reasons as discussed in claim 1 above.

In response, as discussed above, the combination of Griffiths and Sackstein et al discloses all the claimed limitations of claim 1.

In re page 10, applicants state that independent claim 11 contains elements similar to independent claim 1 and should be allowable for the reasons discussed above.

In response, as discussed above, the combination of Griffiths and Sackstein et al discloses all the claimed limitations of claim 1.

In re page 10, applicants state that dependent claims 12-14 should be allow for the same reasons as discussed in claim 1 above.

In response, as discussed above, the combination of Griffiths and Sackstein et al discloses all the claimed limitations of claim 1.

In re page 10, applicants state that independent claim 15 contains elements similar to independent claim 1 and should be allowable for the reasons discussed above.

In response, as discussed above, the combination of Griffiths and Sackstein et al discloses all the claimed limitations of claim 1.

In re page 11, applicants state that dependent claims 16-20 should be allow for the same reasons as discussed in claim 1 above.

In response, as discussed above, the combination of Griffiths and Sackstein et al discloses all the claimed limitations of claim 1.

Claim Rejections - 35 USC § 103(a)

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffiths (US Patent No. 6,262,776 B1) in view of Sackstein et al. (US Patent No. 6,744,815 B1) as set forth in the Last Office Action.

In considering claim 1, Griffiths discloses all the claimed subject matter, note 1) the claimed a component that determines an initial audio input buffer level is met by the level of the audio buffer 212 at the start time or “due” time (Fig. 2, col. 12, lines 11-40), 2) the claimed a component that determines an amount of drift in the initial audio input

Art Unit: 2622

buffer level and adjusts the clocks to maintain the initial audio input buffer level if the amount of drift reaches a first predetermined threshold is met by the receipt of the low buffer condition message and after the current frame of video data 202 was played, the video rendered waits for a predefined period of time depending on how low the audio buffer 212 currently is, to fill more audio data 200 (Figs. 1 and 2, col. 15, lines 29-67), and 3) the claimed a component that measures a displacement of a video signal associated with the audio signal in response to the adjusting of the clocks and operates to negate the measured displacement of the video signal if the measured displacement reaches a second predetermined threshold is met by the video decoder filter 216 which is able to make such decisions (i.e., drop the frame or decode the frame) based upon messages or signals, preferably called quality messages, being sent from the video rendered filter 218 "downstream" of the video decoder 216, essentially, the video rendered filter 218 asynchronously notifies the video decoder filter 216 of how late the last frame was played and the video rendered filter 218 also helps to maintain synchronization with the played audio data 200 by adjusting the start or due time of the frame of video data 202 by a particular offset time (Fig.1 and 2, col. 12, line 28 to col. 13, line 60 and col. 16, lines 1-37).

However, Griffiths does not specifically disclose the newly added limitations "the locked audio and video clocks".

Sackstein et al teach that if the audio clock 112 and the video clock 122 are locked, the ratio between the rate at which compressed video frames enter buffer 128 (VIDEOin) and the rate at which compressed audio frames enter buffer 118 (AUDIOin)

Art Unit: 2622

is on average constant (RATIO_{in}), RATIO_{in} is equal to RATIO_{sampled} (Figs. 2-3, col. 8, line 54 to col. 10, line 38).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the locked audio and video clocks as taught by Sackstein et al into Griffiths's system in order to simplify the process of synchronizing the audio and video signals by reading the audio and video signals using the locked video and audio clocks.

In considering claim 2, the claimed wherein the initial audio input buffer level is stored in a memory is met by the audio buffer 212 (Figs. 1 and 2, col. 15, lines 29-67 of Griffiths).

In considering claim 3, the claimed wherein a clock recovery control is disabled if the amount of drift reaches the first predetermined threshold is met by the slow video processing when the audio buffer level 212 is low and stop reading the audio data from the audio buffer level 212 (Figs. 1 and 2, col. 3, lines 52-67 and col. 15, lines 29-67 of Griffiths).

In considering claim 4, the claimed wherein the audio signal and the video signal comprise a Motion Picture Experts Group (MPEG) signal is met by the MPEG signal (col. 10, lines 24-58 of Griffiths).

In considering claim 5, the claimed wherein the component that measures the displacement of the video signal associated with the audio signal operates to negate the measured displacement of the video signal by re-initializing the measurement of the initial audio input buffer level is met by the receipt of the low buffer condition message

and after the current frame of video data 202 was played, the video renderer waits for a predefined period of time depending on how low the audio buffer 212 currently is, to fill more audio data 200 (Figs. 1 and 2, col. 15, lines 29-67 of Griffiths).

In considering claim 6, the claimed wherein the component that measures the displacement of the video signal associated with the audio signal operates to negate the measured displacement of the video signal by dropping a frame of the video signal is met by the video decoder filter 216 which is able to make such decisions (i.e., drop the frame or decode the frame) based upon messages or signals, preferably called quality messages, being sent from the video renderer filter 218 “downstream” of the video decoder 216, essentially, the video renderer filter 218 asynchronously notifies the video decoder filter 216 of how late the last frame was played to maintain synchronization with the played audio data 200 e(Fig.1 and 2, col. 12, line 28 to col. 13, line 60 and col. 16, lines 1-37 of Griffiths).

In considering claim 7, the combination of Griffiths and Sackstein et al discloses all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the first predetermined threshold is about +/- 10 ms. The capability of using the first predetermined threshold is about +/- 10 ms is old and well known in the art. Therefore, the Official Notice is taken. It would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the old and well known using of the first predetermined threshold is about +/- 10 ms into the combination of Griffiths and Sackstein et al's system since it merely amount selecting available predetermined threshold values.

In considering claim 8, the combination of Griffiths and Sackstein et al discloses all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the second predetermined threshold is about ± 25 ms. The capability of using the second predetermined threshold is about ± 25 ms is old and well known in the art. Therefore, the Official Notice is taken. It would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the old and well known using of the second predetermined threshold is about ± 25 ms into the combination of Griffiths and Sackstein et al's system since it merely amount selecting available predetermined threshold values.

In considering claim 9, the combination of Griffiths and Sackstein et al discloses all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the system comprises a portion of a television set. The capability of using the system comprises a portion of a television set is old and well known in the art. Therefore, the Official Notice is taken. It would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the old and well known using of the system comprises a portion of a television set into the combination of Griffiths and Sackstein et al's system since it merely amount selecting available television devices.

In considering claim 10, the combination of Griffiths and Sackstein et al discloses all the limitations of the instant invention as discussed in claims 1 and 9 above, except for providing the claimed wherein the television set comprises a High Definition Television (HDTV) set. The capability of using the television set comprises a High

Art Unit: 2622

Definition Television (HDTV) set is old and well known in the art. Therefore, the Official Notice is taken. It would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the old and well known using of the television set comprises a High Definition Television (HDTV) set into the combination of Griffiths and Sackstein et al's system since it merely amount selecting available television devices.

Claim 11 is rejected for the same reason as discussed in claim 1 above.

Claims 12-14 are rejected for the same reason as discussed in claims 4-6, respectively.

Claims 15-17 are rejected for the same reason as discussed in claims 1-3, respectively.

Claims 18-19 are rejected for the same reason as discussed in claims 5-6, respectively.

In considering claim 20, the claimed wherein the recited acts are performed in the recited order is met by Fig. 10, col. 16, line 38 to col. 21, line 43 of Griffiths.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2622

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 9:00 AM - 6:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 08, 2008

/Trang U. Tran/
Primary Examiner, Art Unit 2622

Application/Control Number: 10/531,695
Art Unit: 2622

Page 11